

### **REMARKS**

The Official Action mailed November 3, 2005, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on February 25, 2005 and August 4, 2005. A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 25-200 were pending in the present application prior to the above amendment. Independent claims 25, 27, 33, 41, 43 and 49 have been amended to better recite the features of the present invention. The Applicant notes with appreciation the allowance of claims 29-32, 35-40, 45-48, 51-56, 80, 89, 107, 116, 125, 152, 161, 179, 188, 197, 202, 204, 206, 208 and 212 (page 3, Paper No. 20051021). Dependent claims 57-61, 63-70, 72-79, 81-88, 90-97, 99-106, 108-115, 117-124, 126-133, 135-142, 144-151, 153-160, 162-169, 171-178, 180-187, 189-196 and 198-200 have been withdrawn from consideration by the Examiner (page 2, Id.). Accordingly, claims 25-56, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188, 197 and 201-212 are currently elected, of which claims 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53 and 55 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 25-28, 33, 34, 41-44, 49, 50, 62, 71, 98, 134, 143, 152, 161, 170, 201, 203, 205, 207 and 209-211 as obvious based on the combination of U.S. Patent No. 6,414,280 to Nishitani et al. and U.S. Patent No. 6,461,439 to Granneman et al. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 25, 27, 41 and 43 have been amended to recite heating a substrate by a light from a light lamp source, where a light intensity of the light is changed at least two times with a cycle of one second or longer. Also, independent claims 33 and 49 have been amended in a similar manner except that the cycle is one second or shorter. These features are supported by the specification, for example, at page 5, lines 3-8; and Figure 7. For the reasons provided below, Nishitani and Granneman, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action asserts that Nishitani discloses "a method of manufacturing a semiconductor device comprising ... heating a substrate by switching on/off a lamp with a cycle of one second or longer" (page 2, Paper No. 20051021). However, Nishitani

and Granneman, either alone or in combination do not teach or suggest heating a substrate by a light from a light lamp source, where a light intensity of the light is changed at least two times with a cycle of one second or longer (or shorter).


Specifically, Nishitani discloses “[w]ith the lamp control power supply 17 receiving a lamp light control signal ... the lamps 10 are energized and lighted for a prescribed time (10 to 20 seconds) ... the supply of current to the lamps 10 is stopped, [and] the lamps 10 are switched off ...” (column 16, lines 1-13). That is, Nishitani appears to teach that a lamp is switched on and off once. However, Nishitani does not teach or suggest heating a substrate by a light from a light lamp source, where a light intensity of the light is changed at least two times with a cycle of one second or longer (or shorter).

Granneman does not cure the deficiencies in Nishitani. Granneman is relied upon to allegedly teach “a heated gas ... and reduced pressure” (Id.). Nishitani and Granneman, either alone or in combination, do not teach or suggest heating a substrate by a light from a light lamp source, where a light intensity of the light is changed at least two times with a cycle of one second or longer (or shorter).

Since Nishitani and Granneman do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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